Acta Arachnologica, 52(2): 79–81, December 31, 2003

Discovery of *Oxyptila atomaria* (Araneae: Thomisidae) from Japan

Hirotsugu Ono[1] and Mayumi Matsuda[2]

[1] *Department of Zoology, National Science Museum, 3–23–1, Hyakunin-cho, Shinjuku-ku, Tokyo, 169–0073 Japan*
E-mail: ono@kahaku.go.jp
[2] *25, Kita-ku, Nukabira, Kamishihoro-cho, Kato-gun, Hokkaido, 080–1403 Japan*

Abstract — A soil-dwelling crab spider, *Oxyptila atomaria* (Panzer 1801) (Araneae: Thomisidae), is newly recorded from Japan based on specimens recently collected in Hokkaido mainly by pit fall trapping. A description of the spider is presented with illustrations of its female genitalia and male palpal organ. Although this species is widely distributed in northern Eurasia from Europe to Siberia, Sakhalin, Korea and Japan, it seems much rarer in the eastern part.

Key words — Taxonomy, Araneae, Thomisidae, new records, Japan

Spiders of the genus *Oxyptila* Simon 1864 are soil-dwellers and hardly found with the naked eye because they are small and slow in motion and have similar coloration to the earth and dead leaves. Only twenty years have passed since the spiders of the genus were correctly recognized in Japan (Ono 1985). However, specimens of the spiders were recently given more than the past, due to the development of collecting methods, especially of extractions with Tullgren funnels and various kinds of trapping.

Seven species of the genus have been known from Japan (Ono 1985, 1988, 1996, 2002; Ono & Yasuda 1992), that is, *Oxyptila nipponica* Ono 1985, *O. sincera* Kulczyński 1926, *O. matsumotoi* Ono 1988, *O. trux* (Blackwall 1846), *O. sakhalinensis* Ono, Marusik & Logunov 1990, *O. fukushimai* Ono 2002, and *O. nongae* Paik 1974.

In the present paper, an eighth species of the genus in Japan, *Oxyptila atomaria* (Panzer 1801), will be reported and illustrated. The species was hitherto known in Europe (Roberts 1985, and others), Siberia (Logunov & Marusik, 1994, and others), Sakhalin (Ono, Marusik & Logunov 1990) and Korea (Namkung 2001). Although the distributional range of this species is very wide, covering northern Eurasia from Europe to its eastern edge, the spider seems to be much rarer in the east than in the west.

The specimens used for this study are preserved in the collection of the Department of Zoology, National Science Museum, Tokyo (NSMT) and in the private collection of the junior author (M. Matsuda). The abbreviations used herein are as follows: ALE, anterior lateral eye; AME, anterior median eye; PLE, posterior lateral eye; PME, posterior median eye.

Before going further, the authors wish to express their sincere thanks to Mr. Ken-ichi Kumada, Mie, Mr. Yoneji Akita, Hokkaido, and Mr. Shigehisa Hori, Hokkaido for offering invaluable specimens.

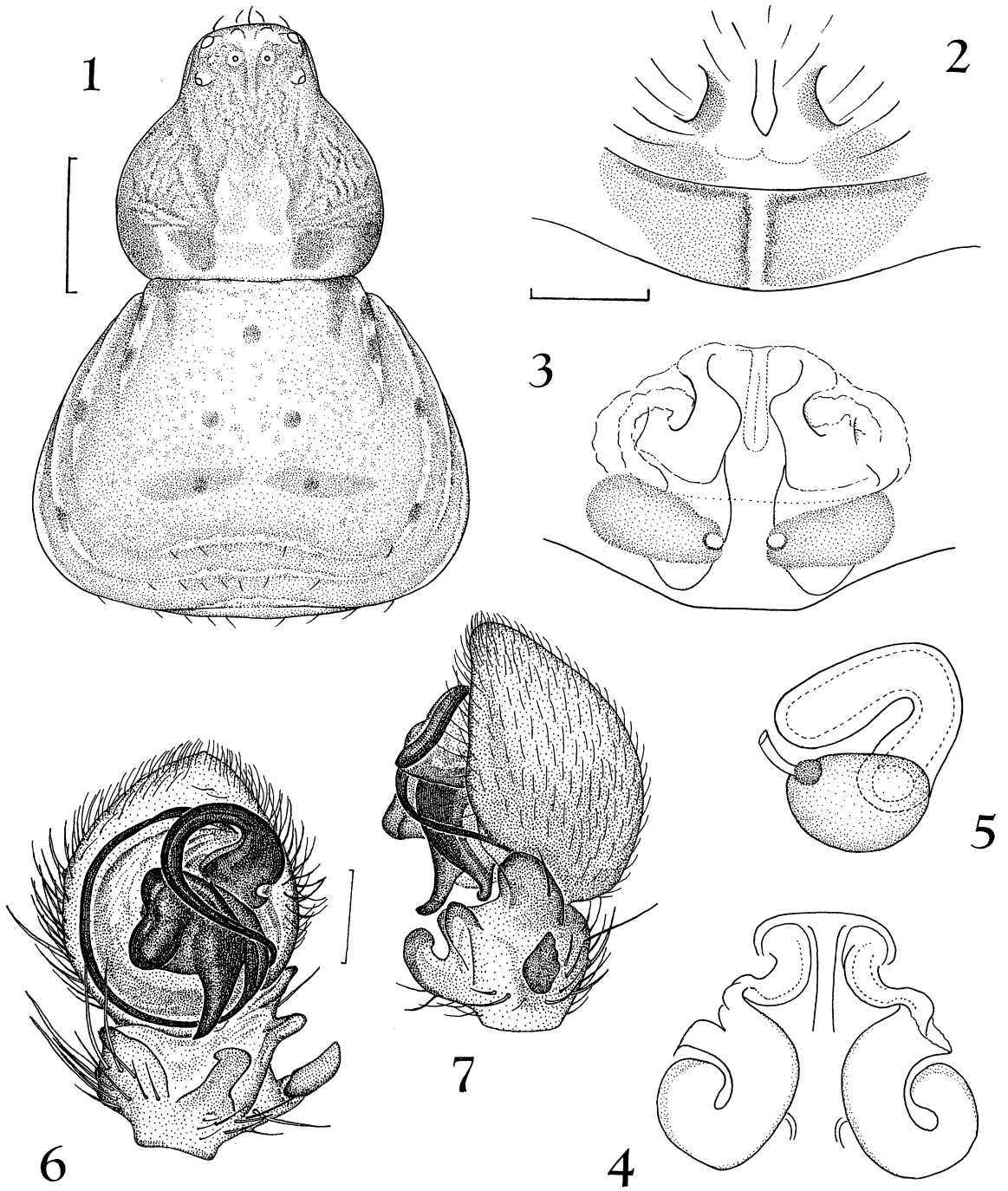
Oxyptila atomaria (Panzer 1801)
(Figs. 1–7)

Aranea atomaria Panzer 1801, pl. 19 (type area: Germany, types not available.)

Oxyptila atomaria: Roberts 1985, p. 106; Ono, Marusik & Logunov 1990, p. 12; Heimer & Nentwig 1991, p. 472; Logunov & Marusik 1994, p. 179; Roberts 1995, p. 168 (*Ozyptila*); Namkung 2001, p. 533 (*Ozyptila*).
(For further literatures and synonymies see Bonnet 1958.)

Specimens examined. 1 female from Gomezaki, Teurito Island, Haboro-cho, Tomamae-gun, Hokkaido, Japan, 29-V-1982, K. Kumada leg. (NSMT-Ar 5325); 1 female and 2 juveniles from Toyohira-ku, Sapporo-shi, Hokkaido, 1992, Y. Akita leg. (NSMT-Ar 5326); 1 female from Hamatonbetsu-cho near Kutcharo-ko Lake, Esashi-gun, Hokkaido, by bait trapping, 21-X-1994, H. Kawasaki leg. (NSMT-Ar 5327); 3 females from Nopporo-Shinrin-Koen Park, Ebetsu-shi, Hokkaido, by pit fall and flight intercept trapping, 26-VII-2000, 16-V-2001 and 25-VII-2001, S. Hori leg. (Collection M. Matsuda); 1 female, same locality and collector as for the former specimens, 29-VIII-2001 (NSMT-Ar 5328); 1 female and 2 males from Shizukawa, 1 km south of Shizukawa Bridge over Abiragawa River, Tomakomai-shi, Hokkaido, by pit fall trapping at sandy place in grassland, from 29-IX to 8-X-2001, S. Hori leg. (NSMT-Ar 5329); 2 males, same data as for the former specimens (Collection M. Matsuda).

Description (based on a female from Teurito Island, NSMT-Ar 5325, and a male from Tomakomai-shi, NSMT-Ar 5329). Measurement: Female: Body length 4.50 mm; prosoma length 2.00 mm, width 1.92 mm; opisthosoma length 2.67 mm, width 3.04 mm; lengths of legs [total



Figs. 1–7. *Oxyptila atomaria* (Panzer 1801) from Hokkaido, Japan: 1-5, female from Teurito Island (NSMT-Ar 5325); 6–7, male from Tomakomai-shi (Coll. M. Matsuda). — 1, Pro- and opisthosomata, dorsal view; 2, epigynum, ventral view; 3, female genitalia, ventral view; 4, female genitalia, dorsal view; 5, left intromittent canal and spermatheca, lateral view; 6, palpal organ, ventral view; 7, palpal organ, retrolateral view. (Scales for Fig. 1, 1 mm; for Figs. 2–7, 0.2 mm.)

length (femur + patella + tibia + metatarsus + tarsus)]: I 5.41 mm (1.63 + 0.96 + 1.19 + 1.04 + 0.59), II 5.15 mm (1.63 + 0.93 + 1.11 + 0.89 + 0.59), III 3.12 mm (1.04 + 0.52 + 0.63 + 0.52 + 0.41), IV 3.30 mm (1.11 + 0.59 + 1.64 + 0.52 + 0.44). Male: Body length 4.07 mm; prosoma length 1.92 mm, width 1.85 mm; opisthosoma length 1.85 mm, width 2.00 mm; lengths of legs: I 5.90 mm (1.93 + 0.85 + 1.30 + 1.15 + 0.67), II 5.38 mm (1.63 + 0.93 + 1.19 + 1.04 + 0.59), III 3.41 mm (1.11 + 0.56 + 0.78 + 0.52 + 0.44), IV 3.54 mm (1.22 + 0.52 + 0.74 + 0.62 + 0.44).

Prosoma. Carapace longer than wide (length/width female and male 1.04), female clypeus with blunt setae, male clypeus with spiniform setae. Eyes: ALE>PLE>AME≧PME (female 8:6:5:4, male 10:6:5:5 in size), ALE/AME

female 1.60, male 2.00, PLE/PME female 1.60, male 1.20, AME-AME/AME-ALE female 1.33, male 1.56, PME-PME/PME-PLE female 0.65, male 0.64, median ocular area longer than wide (length/width female 1.20, male 1.04), narrower behind than in front (anterior width/ posterior width female and male 1.04), clypeus/ AME-AME female 0.75, male 1.00, lateral eyes on a large tubercle, respectively. Labium longer than wide (length/width female and male 1.15), sternum longer than wide (length /width female 1.25, male 1.31).

Legs. Spiniformation (terminology see Ono 1988, p.13): Female: Femur: I prolateral 1, II-III dorsal 1, respectively; tibia: I-IV dorsal 1-0 (weak), I-II ventral 0-2-2; metatarsus: I-II pro- and retrolateral 0-1-1ap, ventral 2-2, respectively. Male: Femur: I-IV dorsal 1; tibia: I-IV dorsal 1-0 (weak), I-II ventral 0-2-2; metatarsus: I-II pro- and retrolateral 0-0-1ap, ventral 2-2. Tarsal claws of legs: female and male, I-II with 3 teeth, III-IV with 2 teeth.

Male palp (Figs. 6–7). Tibia with four developed apophyses: the ventral one digitiform, the retrolateral one wide with an intermediate smaller apophysis, the fourth one peculiar in shape, arising from a socket and situated at the middle of the segment. Tegulum with two developed apophyses: the basal one conical and pointed, the apical one digitiform and strong; embolus filiform and winding.

Opisthosoma wider than long (length/width female 0.88, male 0.93), dorsal surface relatively smooth, female with weakly spatulate hairs and male with short, blunt hairs.

Female genitalia (Figs. 2–5). Epigynum with a narrow lingua at the anterior part and posterior swelling. Intromittent orifices situated at both sides of the lingua, intromittent canal tubular and coiled, spermathecae ovate.

Coloration and markings. Female (Fig. 1): Carapace yellowish brown, marginated with white, lighter at the middle, with darker markings at the sides and posterior declivity, ocular area white; chelicerae, maxillae and labium light yellowish brown, sternum yellowish brown mottled with brown, palps and legs yellowish brown, with white and brown spots. Opisthosomal dorsum beige, with indistict markings and black spots at the sides, venter yellowish brown. Male: Much darker than female; carapace dark brown, lighter at the middle, with black markings at the sides and posterior declivity, chelicerae, maxillae and labium yellowish brown, sternum yellowish brown with nine black spots, palps and legs light brown mottled with blackish brown. Opisthosomal dorsum dark brown with indistinct, black markings, venter brown mottled with black.

Variation. Body length: females 4.50–5.50 mm, males 3.70–4.07 mm. Some females have much darker body.

Distribution. Japan (Hokkaido); widely distributed from Europe to Japan, Sakhalin and Korea, but not known from China.

Remarks. This species can be easily distinguished from other Japanese congeners by the structure of genital organs, especially by the peculiar shape of tibial apophyses of male palp and the epigynum with a narrow lingua at its anterior part. Females of the spider are easily distinguishable by large size and the lighter coloration and *Xysticus*-like markings of carapace.

References

Bonnet, P. 1958. *Oxyptila atomaria.* Bibliographia Araneorum, 2: 3249–3251.

Heimer, S. & Nentwig, W. 1991. Spinnen Mitteleuropas. Paul Parey, Berlin, 543 pp.

Logunov, D. V. & Marusik, Y. M. 1994. A faunistic review of the crab spiders (Araneae, Thomisidae) from the mountains of South Siberia. Bull. Inst. Roy. Sci. Nat. Belg., Ent, 64: 177–197.

Namkung, J. 2001. The Spiders from Korea. Kyo-Hak Publ., Seoul, 647 pp.

Ono, H. 1985. Revision einiger Arten der Familie Thomisidae (Arachnida, Araneae) aus Japan. Bull. Natn. Sci. Mus., Tokyo, Ser. A, 11: 19–39.

Ono, H. 1988. A revisional study of the spider family Thomisidae (Arachnida, Araneae) of Japan. Natn. Sci. Mus. Monogr., Tokyo, 5: i-ii, 1–252, 1 col. pl.

Ono, H. 1996. New records of two Korean species of the spider families Mimetidae and Thomisidae (Araneae) from Japan. Acta Arachnol., 45:19–24.

Ono, H. 2002. New species of crab spiders (Araneae, Thomisidae) from Japan. Bull. Natn. Sci. Mus., Tokyo, Ser. A, 28: 201–210.

Ono, H., Marusik Y. M. & Logunov, D. V. 1990. Spiders of the family Thomisidae from Sakhalin and the Kurile Islands. Acta Arachnol., 39: 7–19.

Ono, H. & Yasuda, N. 1992. Records of thomisid spiders (Arachnida, Araneae) from Hokkaido, Japan. Bull. Sounkyo Mus. Nat. Hist., 12: 1–13. (In Japanese with English summary)

Panzer, G. W. F. 1801. *Aranea atomaria.* Faunae insectorum germaniae initia, 74: fol. 19. (Not seen.)

Roberts, M. J. 1985. The Spiders of Great Britain and Ireland, Vol. 1. Harley Books, Colchester, 229 pp.

Roberts, M. J. 1995. Spiders of Britain & Northern Europe. Harper Collins, London, 383 pp.

Received June 23, 2003 / Accepted July 18, 2003

Acta Arachnologica Vol. 52, No. 2 掲載論文の和文要旨

キクヅキコモリグモから出現した糸片虫科線虫（pp. 77–78）

飯田博之[1]・長谷川英男[2]（[1]〒606-8502 京都市左京区北白川追分町　京都大学大学院農学研究科昆虫生態学研究室；[2]〒879-5593 大分県大分郡挾間町医大ヶ丘1丁目1番地 大分医科大学感染分子病態制御研究室）

京都市内の水田で採集したキクヅキコモリグモ *Pardosa pseudoannulata* を飼育していたところ，12頭のクモから計22頭の糸片虫科線虫が出てきた．宿主は全て雌成体だった．ほとんどの場合，1頭のクモに寄生していた線虫は1頭だった．しかし，1頭のクモに2頭および10頭の線虫が寄生していた場合もそれぞれ1例ずつあった．また12頭の宿主のうち，線虫が出た後も生きていた個体は2頭だった．線虫の体長は14～159 mmであった．Poinar（1977, 1979, 1986）に基づき線虫の同定を試みたところ，その形態的特徴から *Mermis, Octomermis, Orthomermis, Allomermis, Pheromermis, Eumermis, Phreatomermis, Hydromermis, Quadrimermis, Aranimermis* 属ではないことは判明したが，幼体であったのでこれ以上同定することはできなかった．寄生率については，採集個体のおおよその数から判断すると，1～10%の範囲内であると推測できた．世界では40種以上のクモ類から糸片虫科線虫が見つかっているが，キクヅキコモリグモからの報告例はまだない．糸片線虫科の線虫は幼体のステージで寄生している（Hyman 1951）．したがって，宿主から出た直後はまだ幼体であるため種の同定はできない．今後，線虫の種を同定するためには，Poinar（1986）のように宿主から出た線虫を成虫にまで育てる必要があるだろう．

Oxyptila atomaria（クモ目，カニグモ科）の日本からの発見（pp. 79–81）

小野展嗣[1]・松田まゆみ[2]（[1]〒169-0073 東京都新宿区百人町3-23-1　国立科学博物館動物研究部内；[2]〒080-1403 北海道河東郡上士幌町糠平北区25）

土壌性のカニグモ科の1種 *Oxyptila atomaria*（Panzer 1801）（アトムオチバカニグモ—新称—）を，北海道において主にピットホールトラップを用いて採集された標本に基づいて日本から初めて記録し，両性の生殖器を図示した．本種はヨーロッパから，シベリア，韓国，日本とユーラシア大陸北部に広く分布するが，同大陸東部では比較的稀であると思われる．

北海道産のカイゾクコモリグモ属（クモ目：コモリグモ科）の1新種（pp. 83–84）

田中穂積（〒661-8520 兵庫県尼崎市南塚口町7-29-1　園田学園女子大学生物学研究室）

北海道天塩郡サロベツ原野，苫小牧市弁天沼やウトナイ湖等の湿原より得られたコモリグモ科カイゾクコモリグモ属の1新種を *Pirata hokkaidensis* ミズベコモリグモ（新称）と命名して記載した．本種は中国に分布する，*Pirata serrulatus* Song & Wang 1984に近似するが，雄触肢中部把持器基部の突起がないことによって区別できる．

北ボルネオ産ヒメグモ科（クモ綱：クモ目）の1新属および3新種（pp. 85–89）

吉田　哉（〒990-2484 山形市篭田2丁目7番16号）

北ボルネオから1新属 *Deelemanella* および3新種 *D. borneo, Molione christae, M. kinabalu* を記載した．*Deelemanella*（イソウロウグモ亜科）は雄の背甲の頭部に1つの突起があり，腹部が扁平で背面に数対の突起があることにより他の属から区別できる．*Molione*（ヒメグモ亜科）はこれまで腹部背面に刺状の突起がある3種が知られているが，本稿で記載した2種は腹部背面に突起がない．

アジア産トゲオオザトウムシ亜科数種の正体とシノニム（ザトウムシ目，マザトウムシ科）（pp. 91–102）

Wojciech Staręga（Instytut Biologii Akademii Podlaskiej, Poland）

多数のタイプ標本と原記載にもとづきトゲオオザトウムシ亜科（Opilioninae）の分類学的改訂をおこなった．いくつかの転属と多数のシノニムが含まれる．本亜科は次の属からなる：*Bidentolophus, Egaenus, Himalphalangium, Homolophus, Opilio, Scleropilio*．ほとんどの属と種は中央アジアと東アジアに分布し，アジア西部とヨーロッパには数種が到達しているのみである．次の種については転属をおこなった：*Egaenus pakistanus*（Roewer），*Himalphalangium spinulatum*（Roewer）（＝ゴホントゲザトウムシ），*Homolophus serrulatus*（Karsch），*Bidentolophus adungius*（Roewer），*Homolophus consputus*（Simon），*H. nigridorsus*（Caporiacco），*H. turcicus*（Roewer）（最後の3種はやや不明確），*H. martensi*（Staręga）（以上，転属後の学名）．新しくシノニムとなったのは次のとおり（等号の前が新参シノニム）：*Egaenus carpaticus* Avram = *E. convexus*（C. L. Koch），*Euphalangium afganum* Roewer と *E. chitralense* Roewer = *Egaenus kashmiricus* Caporiacco，*Opilio nigerrimus* Schenkel = *Himalphalangium spinulatum*（Roewer）（ゴホントゲザトウムシ），*Phalangium tricolor* Kulczyński（サンショクザトウムシ），*P. bidentatum* Kulczyński，*Opilio Kishidai* Saitô（キシダザトウムシ），*O. quadridentatus* Wang，*Opilio tricolor* var. *modestus* Schenkel = *Homolophus serrulatus*（Karsch），*Opilio hexa-spinulatus* Saitô と *Oliio koreaus* Charitonov = *Bidentolophus bidens*（Simon），*Opilio birmanicus* Roewer = *Bidentolophus adungius*（Roewer），*Opilio sunuitensis* Nakatsudi（ソニツトザトウムシ）と *Opilio nipponensis* Roewer = *Homolophus arcticus* Banks（ウデブトザトウムシ），*Euphalangium trinkleri* Roewer と *Opilio insolitus* Roewer = *Homolophus tibetanus*（Roewer）．*Phalangium coronatum* Redikorzev，と *Opilio redikorzevi* Roewer = *Opilio lederi* Roewer，*Opilio turcicus* Roewer = *Opilio saxatilis* C. L. Koch，*Opilio reginae*